Pumpe
5-5
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} Maintanance
4-85 Manual

INSTRUCTIONS

T330-DMG

DUAL MAGNIFICATION
DISPLAY DEVICE

No. ISMT330DMG-1E

JEOL LTD. / JEOL TECHNICS LTD.
Tokyo Japan

8610001TP

1 GENERAL

The DMG displays both images of low magnification and high magnification simultaneously. With MID and 2NDCRT, low and high image is displayed on each CRT.

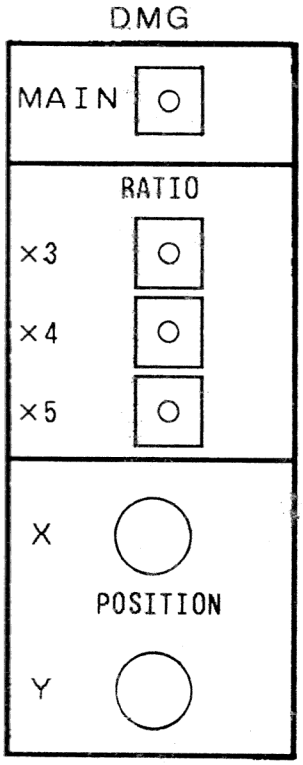
2 SPECIFICATIONS

- Display modes: Split in left and right.
  (DUAL CRT display is available with MID and 2NDCRT.)
- High magnification positioning : X=40 mm, Y=60 mm(DUAL mode;X=100 mm, Y=60 mm)
- High/low magnification ratio: 3 ×, 4 ×, 5 ×
- Observation mode: [MODE] [PIC], [SPEED] [SLOW1] / [SLOW2]

3 COMPOSITION

- DMG unit 1
- Control box: 1

4 PANEL DESCRIPTION



5 OPERATION

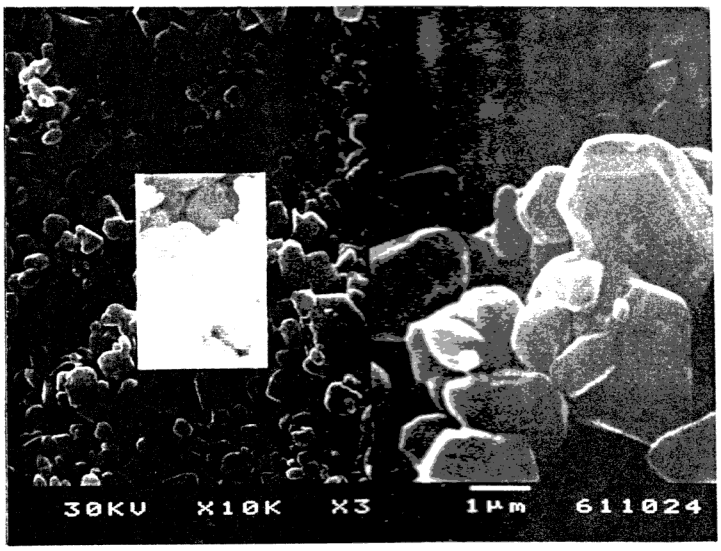
1) Check the cable connection between DMG connector and control box.
2) Depress [MODE] [PIC] and [SPEED] [SLOW1] / [SLOW2] on SEM.
3) Set low magnification by scanning microscope.
4) Set the MAIN switch to ON.
   - Low magnification image with marker and high magnification image of the selected area by the marker are displayed simultaneously.
     - No MID or MID NOR mode: Same signal but different mag.
     - MID SPLIT mode: Desired signal and different mag. on 1 CRT.
     - MID DUAL mode: Desired signal and different mag. on each CRT.
   - The marker position is movable with POSITION X,Y controls.
   - High/low magnification ratio is selectable 3 × to 5 ×.

   Image mag.(high) = (Displayed mag. on SEM) * (High/low mag. ratio)

NOTE: MID DUAL mode is available when MID and 2NDCRT is installed simultaneoualy.

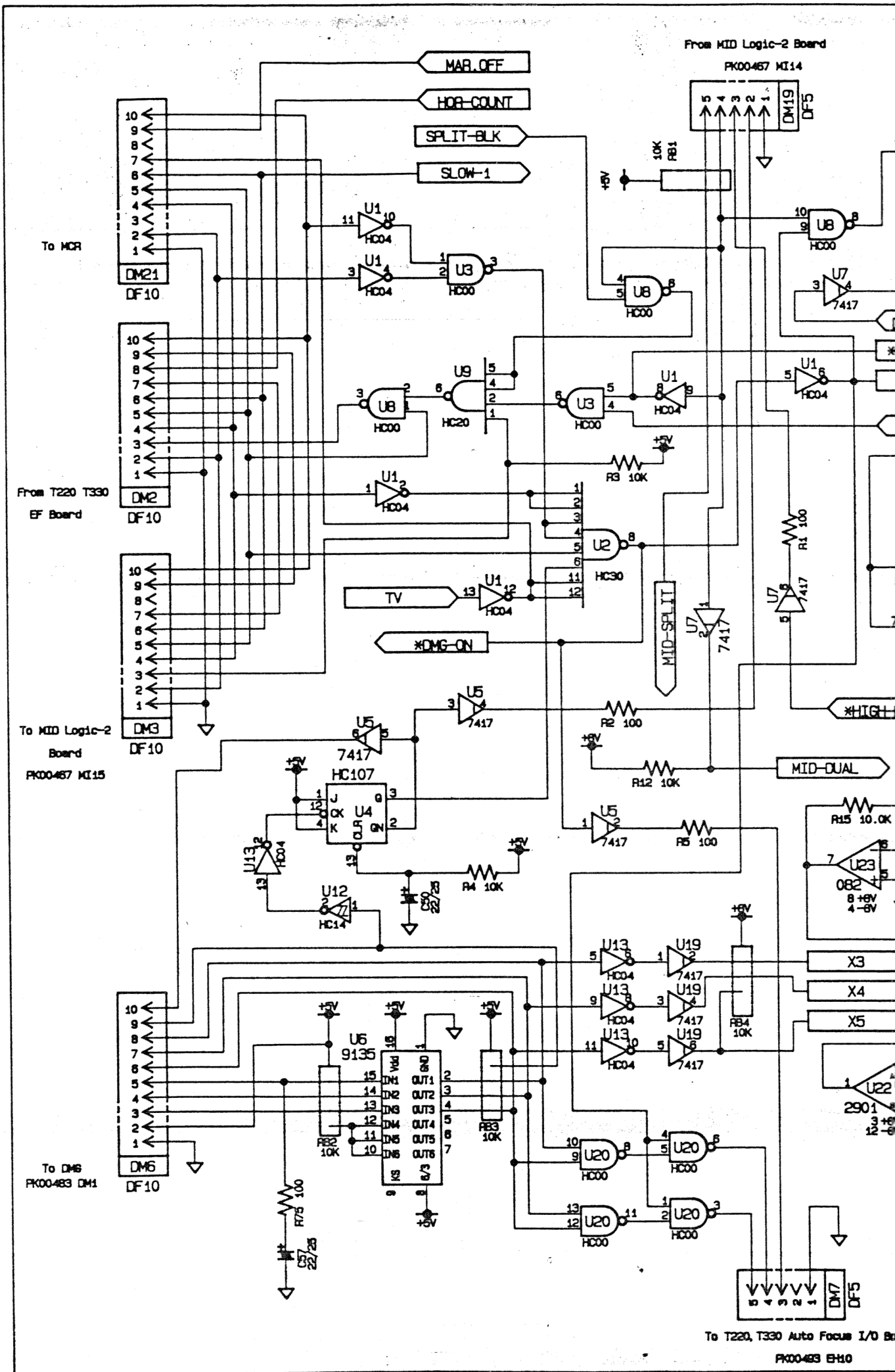
6 PHOTOGRAPHY

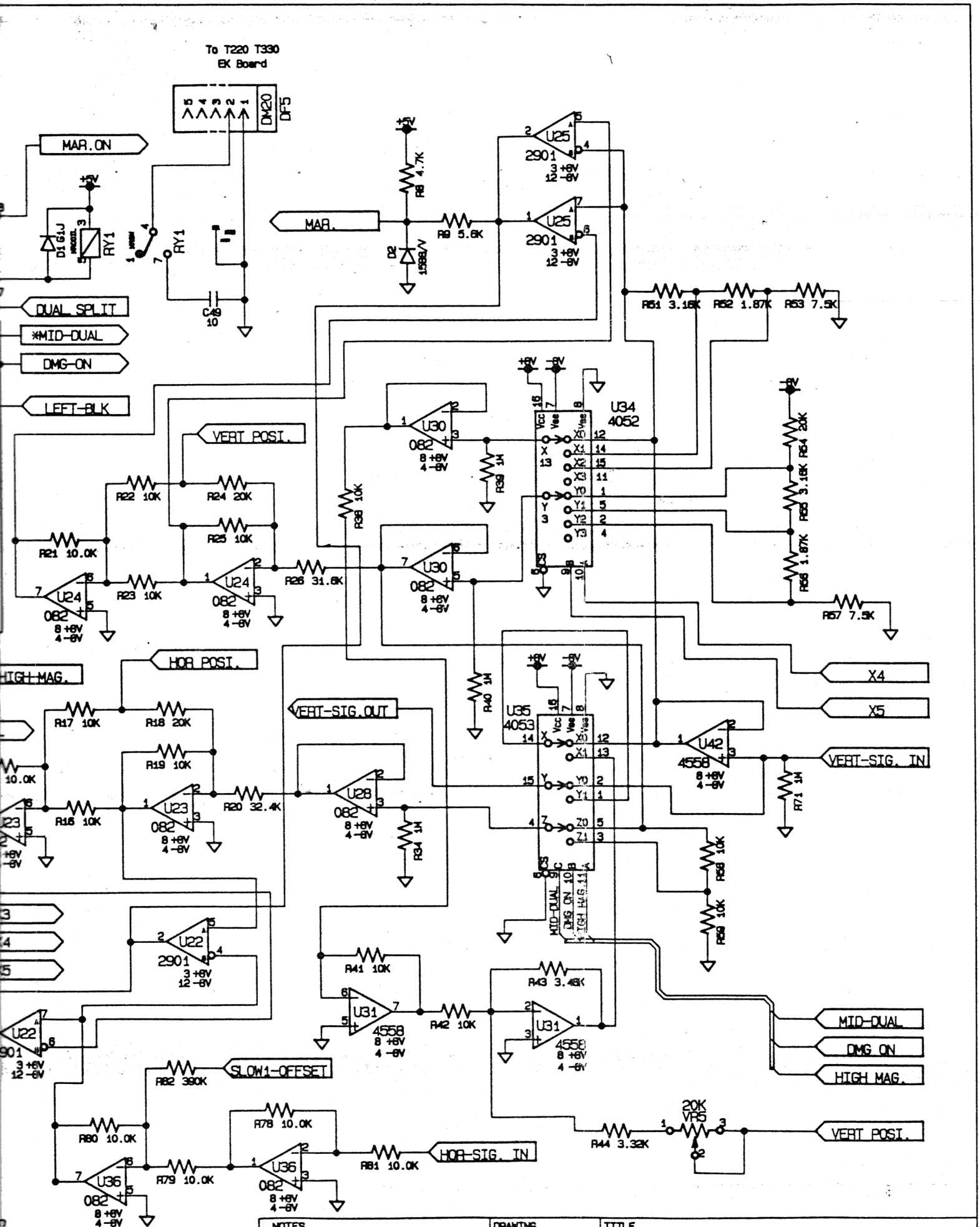
- Photographing time is changed as follows.
  QUICK 72 sec(50Hz), 60 sec(60Hz)
  NOR 180 sec(50Hz),150 sec(60Hz)
- DATA recording(FILM DATA) and its display on CRT.
  Magnification display is changed at DMG ON.(××K is displayed 10,000 × or more.)



7 SIMULTANEOUS USE OF OTHER ATTACHMENTS

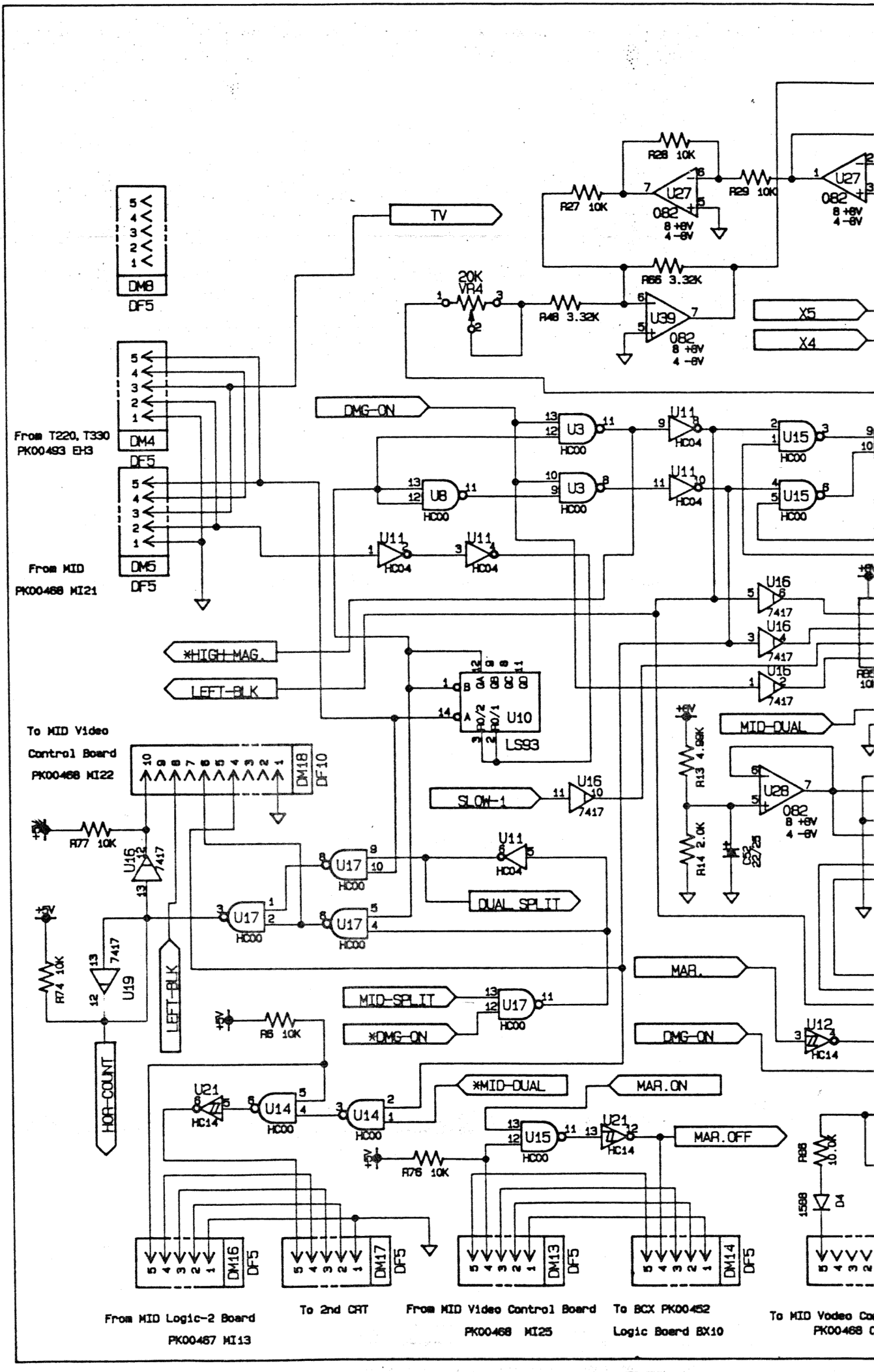
- The DMG can be installed simultaneously with every other attachment.

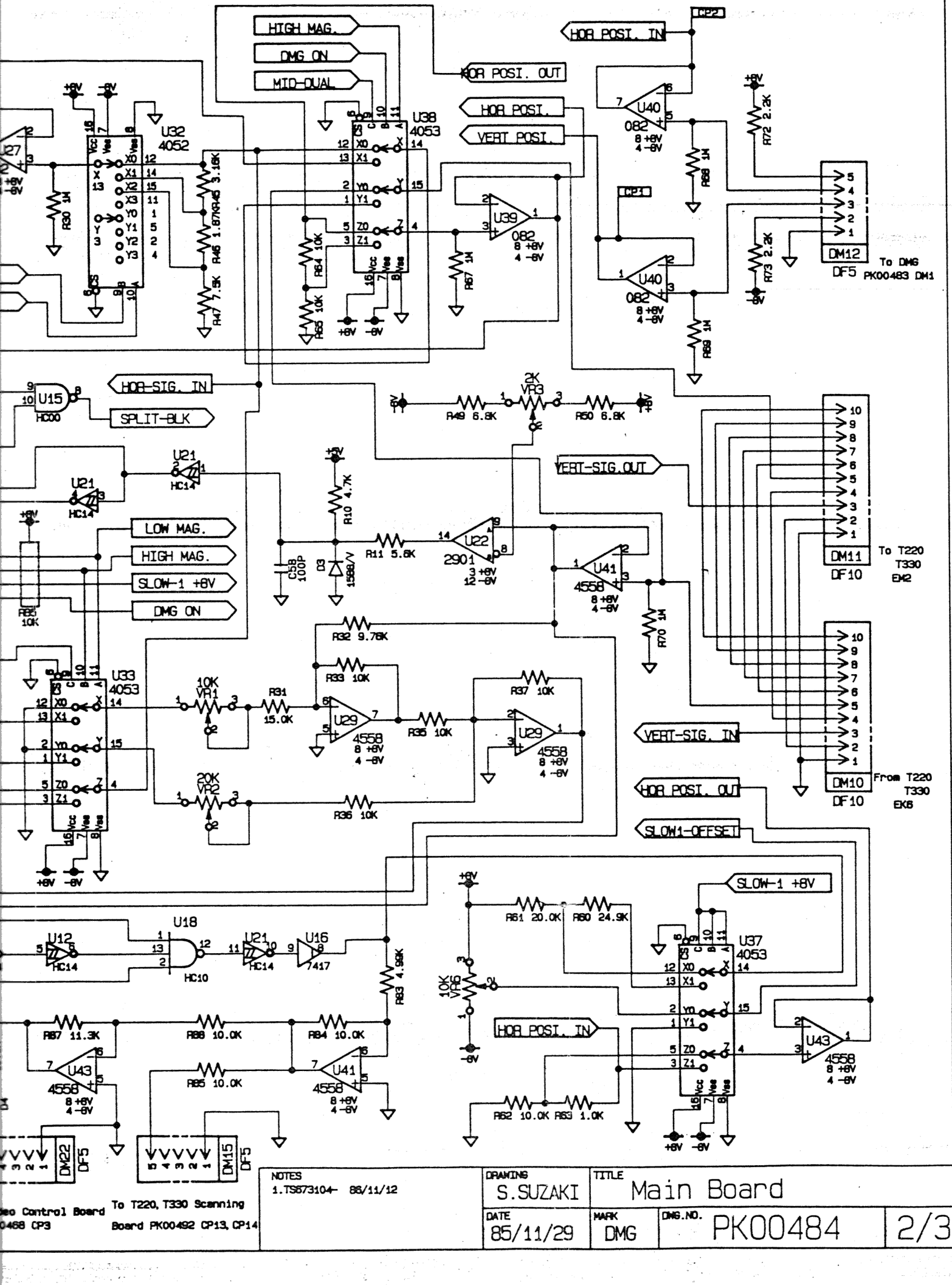

From MID Logic-2 Board
PK00467 MI14
MAR.OFF
HOR-COUNT
SPLIT-BLK
SLOW-1
To MCR
DM21
DF10
From T220 T330
EF Board
DM2
DF10
To MID Logic-2
Board
PK00467 MI15
DM3
DF10
To DM6
PK00483 DM1
DM6
DF10
DM19
DF5
DM7
DF5
To T220, T330 Auto Focus I/O Bo
PK00483 EH10
10K
RB1
HC00
HC04
HC20
HC30
HC14
HC107
7417
9135
TV
*DMG-ON
MID-SPLIT
MID-DUAL
*HIGH
R1 100
R2 100
R3 10K
R4 10K
R5 100
R12 10K
R15 10.0K
R75 100
RB2 10K
RB3 10K
RB4 10K
C57 22/25
C60 22/25
X3
X4
X5

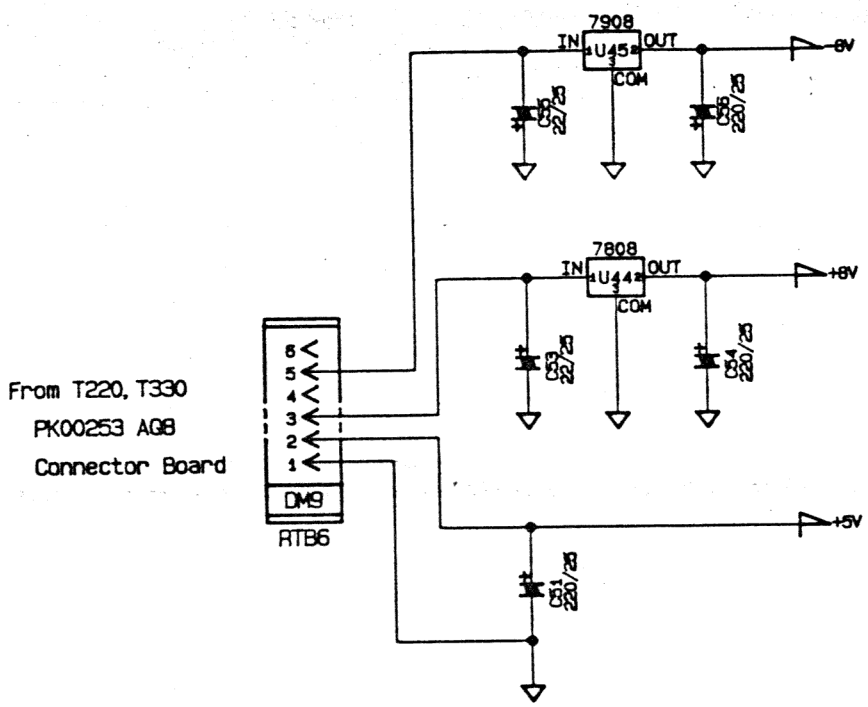


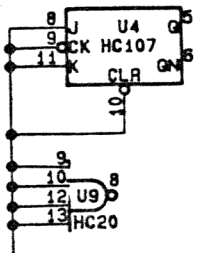
NOTES 1.TS873104- 86/11/12	DRAWING S.SUZAKI	TITLE Main Board	
	DATE 86/06/06	MARK DMG	DMG.NO. PK00484	1/3

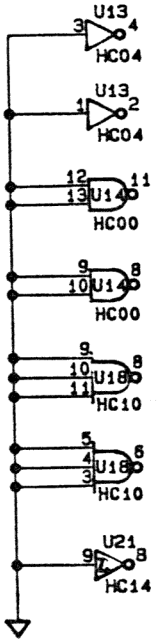
I/O Board

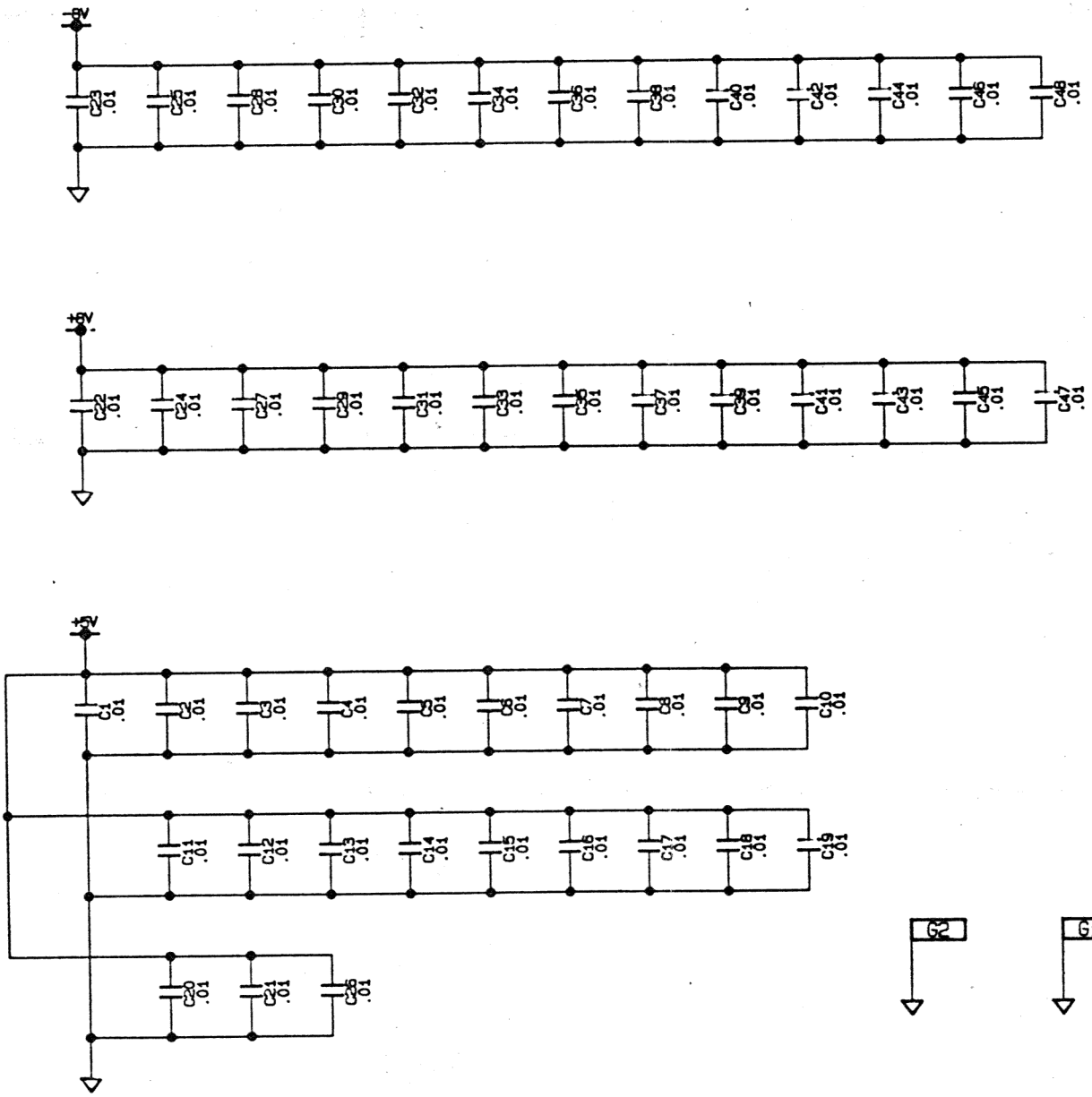

TV
R28 10K
R27 10K
R29 10K
U27
082
8 +8V
4 -8V
R66 3.32K
20K
VR4
R48 3.32K
U39
X5
X4
DM8
DF5
DMG-ON
From T220, T330
PK00493 EH3
DM4
DM5
From MID
PK00468 MI21
U3
U8
U11
U15
U16
HC00
HC04
7417
*HIGH-MAG.
LEFT-BLK
U10
LS93
To MID Video
Control Board
PK00468 MI22
DM18
DF10
SLOW-1
MID-DUAL
R13 4.99K
U28
R14 2.0K
C82 22/25
R77 10K
U17
DUAL SPLIT
R74 10K
U19
MID-SPLIT
*DMG-ON
R6 10K
MAR.
DMG-ON
U12
HC14
HOR-COUNT
U21
U14
*MID-DUAL
MAR.ON
MAR.OFF
R76 10K
R85 10.0K
1S88
D4
DM16
DM17
DM13
DM14
From MID Logic-2 Board
PK00467 MI13
To 2nd CRT
From MID Video Control Board
PK00468 MI25
To BCX PK00452
Logic Board BX10
To MID Vodeo Co
PK00468


HIGH MAG.
DMG ON
MID-DUAL
HOR POSI. OUT
HOR POSI.
VERT POSI.
HOR POSI. IN
CP22
CP21
U38 4053
U32 4052
U39 082
U40 082
R72 2.2K
R73 2.2K
R68 1M
R67 1M
R69 1M
R64 10K
R65 10K
R46 3.16K
R47 7.5K
R30 1M
DM12
DF5
To DMG PK00483 DM1
HOR-SIG. IN
U15 HC00
SPLIT-BLK
R49 6.8K
2K VR3
R50 6.8K
U21 HC14
VERT-SIG.OUT
LOW MAG.
HIGH MAG.
SLOW-1 +8V
DMG ON
R10 4.7K
C58 100P
D3 1S88/V
R11 5.6K
U22 2901
U41 4558
R70 1M
DM11
DF10
To T220 T330 EM2
R66 10K
U33 4053
R32 9.76K
R33 10K
10K VR1
R31 15.0K
U29 4558
R35 10K
R37 10K
20K VR2
R36 10K
VERT-SIG. IN
HOR POSI. OUT
SLOW1-OFFSET
From T220 T330 EK6
U18 HC10
U12 HC14
U21 HC14
U16 7417
R83 4.99K
R87 11.3K
R88 10.0K
R84 10.0K
R85 10.0K
U43 4558
U41 4558
R61 20.0K
R60 24.9K
10K VR4
U37 4053
HOR POSI. IN
R62 10.0K
R63 1.0K
SLOW-1 +8V
+8V
-8V
DM22
DF5
DM15
DF5
To T220, T330 Scanning Board PK00492 CP13, CP14
eo Control Board
0488 CP3
NOTES
1.TS673104- 86/11/12
DRAWING S.SUZAKI
TITLE Main Board
DATE 85/11/29
MARK DMG
DWG.NO. PK00484
2/3


7908
IN
U45
OUT
COM
-8V
C55
22/25
C56
220/25
7808
IN
U44
OUT
COM
+8V
C53
22/25
C54
220/25
From T220, T330
PK00253 AG8
Connector Board
6
5
4
3
2
1
DM9
RTB6
+5V
C51
220/25


U4
CK HC107
CLR
U9
HC20
U11
HC04
U12
HC14
U12
HC14
U12
HC14


U13
HC04
U13
HC04
U14
HC00
U14
HC00
U18
HC10
U18
HC10
U21
HC14



NOTES	DRAWING	TITLE		
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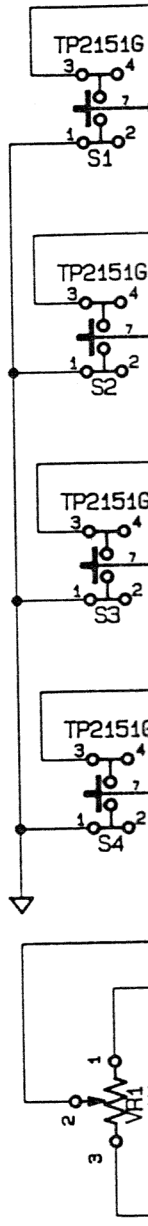
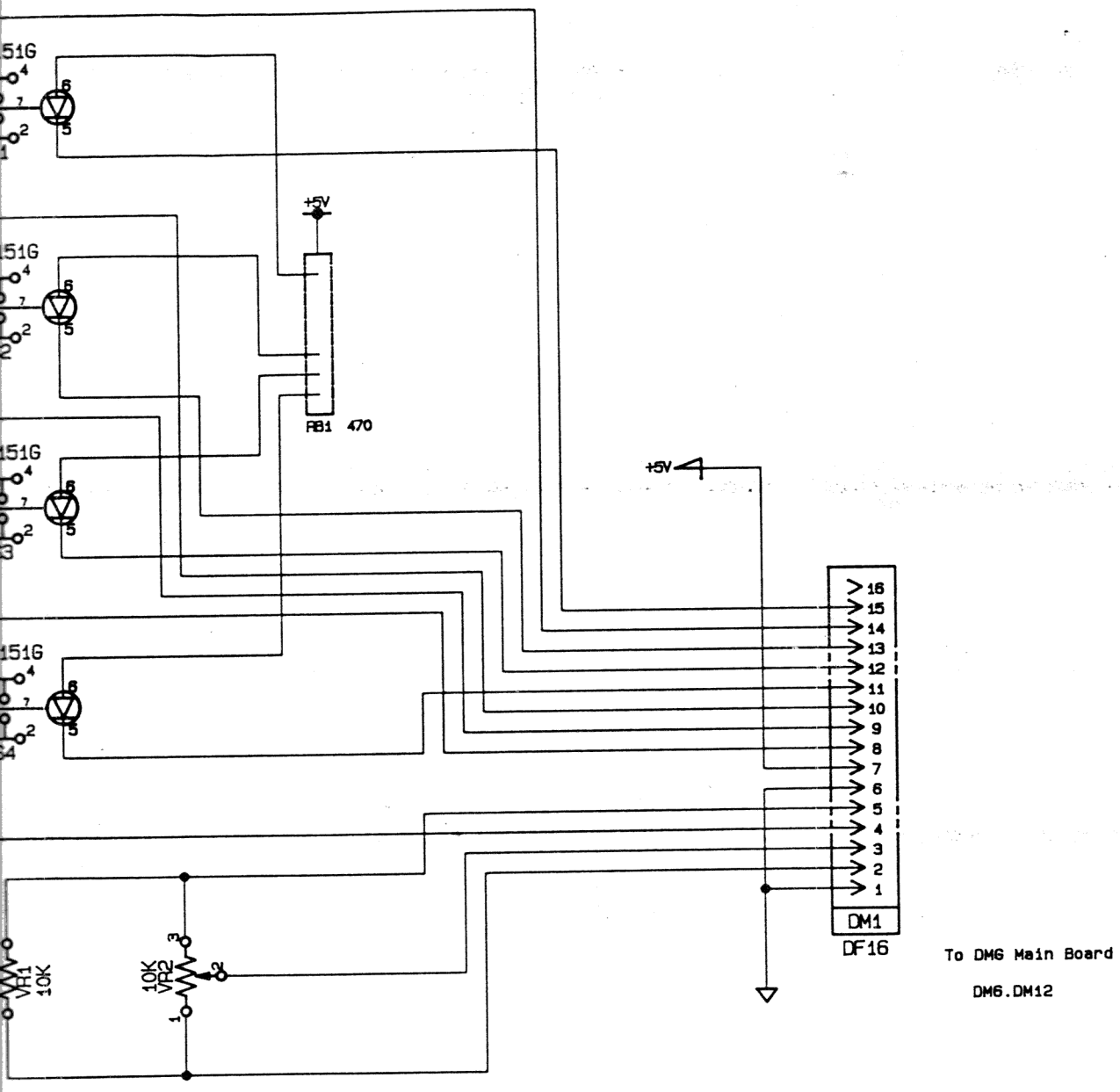
	DATE 86/06/06	MARK DMG	DWG.NO. PK00484	3/3


TP2151G
S1
TP2151G
S2
TP2151G
S3
TP2151G
S4
VR1



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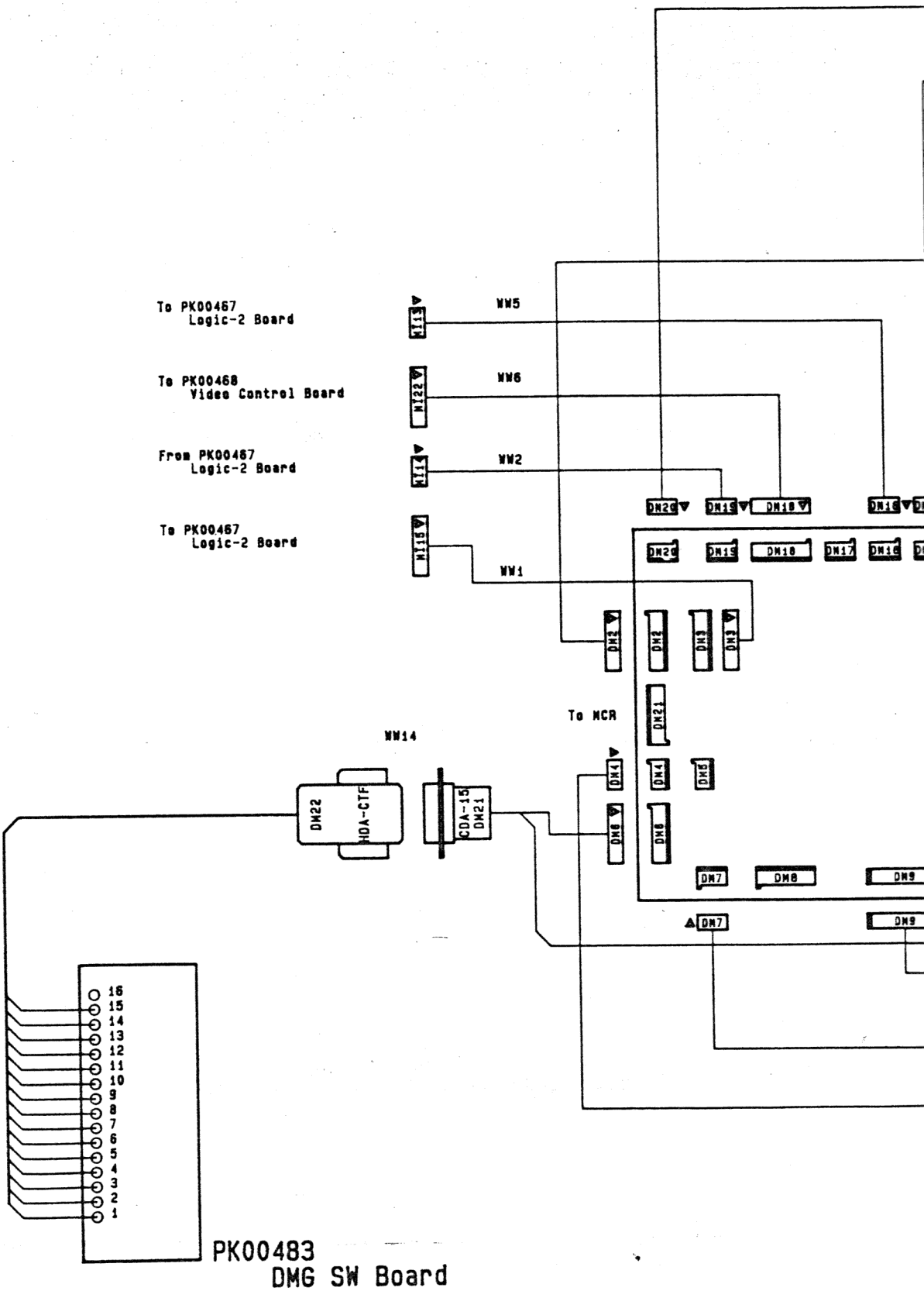
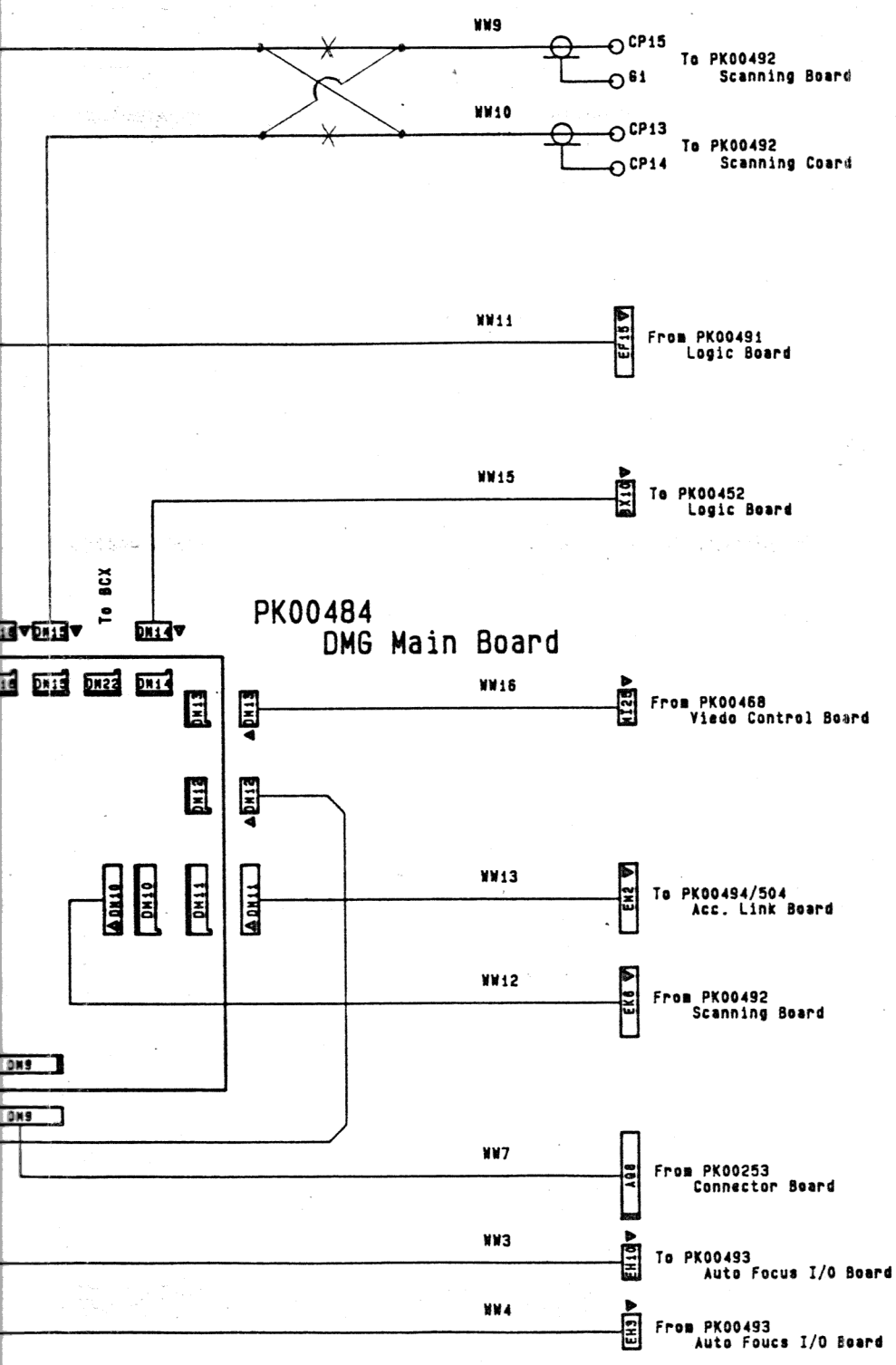
	DATE 86/06/06	MARK DMG	DWG.NO. PK00483	1/1



PK00483
DMG SW Board



NOTES	DWG.NAME	TITLE			
1.TS673100 2.TS673104- 86/11/12 3 4 5	S.SUZAKI	DMG			
	DWG.DATE	MARK	DWG.NO	PAGE	
	86/06/03	DM	PK00469	1/1	